В

1 MKPKHLLCLSTVVAGLALFSTMTHSVLAD--DASNPDAILMNNNQAN 1 MEFKKLLYLTGSIAGITLFSPILTSVQANQINVSQP-----SNNESN

...

Best Local Similarity 55.6 Matches 145; Conservative

55.6%;

OI La

Pred. No. 2.7e-38:

```
**

SERECT REPORT OF THE PROPERTY OF THE PROPE
                                                                                                                                          SORE RESERVED TO SERVED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  子
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                             GASE K., MCSHAN W.M., PRIMEAUX C., FERRETTI J.J.;
"The CAMP factor gene (cfa) of group A streptococci: Identification, cloning, and expression.";
Submitted (JUL-1998) to the EMBL/GenBank/DUBJ databases.
EMBL; AF079502; AAC29481.1; -.
EMBL; AF079502; AAC29481.1; -.
ECSBD8E3 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O86016 PRELIMINARY: PRT: 257 AA. 086016; 01-NOV-1998 (TrEMBLrel. 08, Created) 01-NOV-1998 (TrEMBLrel. 08, Last sequence update) 01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CFA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q53651
Q53651;
01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
01-NOV-1998 (TrEMBLOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacteria: Firmicutes: Bacillus/Clostridium group, Streptoduccaceae:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                             STRAIN-SF370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Streptococcus pyogenes
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Streptococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PODBIELSKI A.; "Molecular characterization of the cfb gene encoding group streptococcal CAMP-factor."; Med. Microbiol Immunol. 183:239-255(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                234 VTVQQVDQEIVTLQAALQTALK 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             114 VIEAITESTQHLTNKVSQANIDMGFGITKLVIRILDPFASVDSIKAQVNDVKALEQKVLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            رع
1-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 95231384.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-R268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Streptococcus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacteria: Firmicutes: Bacillus/Clostridium group: Streptococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MEFKKLLYLTGS-IAGITLFSPILTSVQANQINVSQ-----PSNNESNVISCKKEEIDNS 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VTVAQVDQEIKVLQEALNTALQ 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YPOLKPTORATIYTKSKLOKEIWNTRETROKKYLNVKEEKVYNTLNKAITHAVGVQLNPN 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YPDLQPTDRATIYVKSKLDKLIWQTRITRDQKVLNVKSFEVYHQLNKAITHAVGVQLNPT 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VIQAIVESTQQLINKVDQAHLUMGEAIIKLLIRIADPFASNESIKGQVEAVKQVQATVLT 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LDQDSIQLRNIKDNVQGTDYEKPVNEAITSVEKLKTSLRANPETVYDLNSICSRVEALTD 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MNVTHMMYLSGTLVAGALLFSPAVLEVHADQVTTPQVVNHVNSNNQAQQMAÇK------ 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LNQESAQLYALKEDVKGTEKEQSVNSAISAVENLKTSLRANFETIYDLNSIGTRVEAISD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  165:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X72754: CAA51283.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30
255 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255 I
28373 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 794.5; DB 2;
Pred. No. 1.2e-43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             593B126E CRC32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>بر</u>
س
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
••
```

56.78;

Score 710;

DB 2;

Length 257

```
Ş
                                   밁
                                                            δÃ
                                                                                                                 Ş
                                                                                          g
                                                                                                                                              밁
                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                        RESULT
P78969
ID P7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                        MEDLINE: 98075862.

MAY K.M., WATTS F.Z., JONES N., HYAMS J.S.;

"Type II myosin involved in cytokinesis in the ::ss:
Schizosaccharomyces pombe."

Cell Motil. Cytoskeleton 38:385-396(1997).

EMBL: U75357; AAC49908.1: -
                                                                                                                                                                                                                                                                    PFAM; PF00612; IQ; 1.
PFAM; PF00063; myosin_head; 1.
SEQUENCE 1526 AA; 176499 MW;
196 ----IWQTRITRDQKVLNVKSFEVYHQLNKAITHAVGVQLNPTVTV
                          943 EKLSLEEKDLLDTKGELESLRENNATVLSEKAEFNEQCKSLQETIVT
                                                                                          883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schizosaccharomyces pombe (Fissich yeast).
Eukaryota: Fungi: Ascomycota: Archiascomycetes:
Schizosaccharomycetales. Schizosaccharomycetaceae:
                                                       150 DPFASNE----SIKGQVEAVKQVQATVLT ---YPDLQPTDRATIYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-1997 (TrEMBLrel. 03, Greated)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-MAY-1999 (TrEMBLrel. 10, Last annotation update)
                                                                                                                                       823 DKQLKKRDAEIIELKYELKKQQNSKSEVERDLVETNNSLTAVENLLT
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                            MAY K.M., WATTS F.Z., JONES N. ...
Mol. Biol. Cell 0:0-0(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Schizosaccharomyces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MYOSIN II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P78969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P78969
                                                                                                                    93
                                                                                                                                                                   52 DNSLNQESAQLYALKEDVKGTEKEQS-----VNSAISAVENLKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176 PDLQPTDRATIYTKAKLNKAIWNTRLERDKKVLGIKPFDVYNRLNKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236 TVQQVDDEVIAVQDALETALK 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236 TVAQVDQEIKVLQEALNTALQ 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          176 PDLQPTDRATIYVKSKLDKLIWQTFITPDQKVLNVKSFEVYHQLNK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 IKAIVFSTTQFTHKVEKAHIDMGFAITKLVIRIIDPFASVDAIKAQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116 IQAIVESTQQLTNKVDQAHIDMGFAITKLLIRIADPFASNESIKGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56 DEGHQQLEAIKHEAKGIDIETTVNKAIDAVDHMKSSIRFNTETIYD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56 NQESAQLYALKEDVKGTEKEQSVNSAISAVENLKTSLRANPETIYD
                                                                                   RRTQERLANIEDSESETKQQNENLQRESASLKQINNELESELLEKTS:
                                                                                                              RANPETIYDLNSIGTRVEAISDVIÇAIVFSTQQLTNKVDQAHILMGF
                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY
                                                                                                                                                                                                              20.98;
                                                                                                                                                                                               617
                                                                                                                                                                                                              Score 116.5;
Pred. No. 11;
                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         HYAMS J.S.
                                                                                                                                                                                                                                                                     19AF564F CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1526 AA.
                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          111 135
                         $ 1002
                                                                                 . 14.
                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.1.5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NY 178
                                                                                                                                    T
FJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        >· · · · ·
                                                     194
                                                                                                                                                                ř
```

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
103.0%: Score 1191: DB 1:
Best Local Similarity 100.0%: Pred. No. 2.3e-154.
Matches 1191: Conservative 0: Mismatches 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -35_signal
-10_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                           481
                                                                                                                                                                                                                                                       351
                                    541
                                                                      541 AAAGTTGATCAAGCTCACATTGATATGGGATTTGCTATTACGAAATTACTTATTCGCATT 600
                                                                                                                                481 GTAGAAGCAATCTCTSACGTGATTCAAGCAATTGTTTTTCAAGGCAACASTTAACAAAT 540
                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 TTAAAAAAATTGTTACIGIAIGATACAGGCATAAGTACTTATTTATTTATAGATTGCAA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AATGAACATAAAATAAAAATTAATAATTATATATTITTATGATAATCACATATATTTGAC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AATGAACATAAAATAAAATTAATAATTATATATTTTTATGATAATCACATATATTTGAC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAACTGGTTCAATGGCAGGAATTACTTTATTITGGGCCAATTTTAACAAGTGTGCCAAGCA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAAAAAAATIGTTACTGTATGATACAGSCATAAGTACTTATTTATTATAGATTGCAA 120
                                                                                                                                                                                                                                                       GITAAAGGAACTGAGAAAGAACAATCAGTTAATTCAGCAATTTCAGCTGTTGAAAATTTA 420
                                                                                                                                                                                                                                                                                                                                                                GAAGAAATTGATAATAGTCTAAATCAGGAAAGTGTTCAACTATATGCCTTCAAAGAAGAT 360
                                                                                                                                                                                                                                                                                                                                                                                                  AATCAAATAAATGTTAGTCAACCATCTAATAATGAAAGTAATGTTATTTCACAGAAAAAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                     AATCAAATAAATGTTAGTCAACCATCTAATAATSAAAGTAATGTTATTTCACAGAAAAAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAACTGGITCAATGGCAGGAATTACITTATTTTCGCCAATTTTAACAAGTGTGCGAAGTA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTATAAACAATTATATTTTTCAAAGAGGAATGCTTATGGAATTCAAAAAGTTACTTTAT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITATAAACAATTATATTTTTCAAAGAGGAATGCTTATGGAATTCAAAAAGITACTTTAT 180
                                                                                                         GTAGAAGCAATCTCTGACGTGATTCAAGCAATTGTTTTTTCAACGCAACAGTTAACAAAT
                                                                                                                                                                                AAAACTTCACTTAGAGCTAATCCTGAAACAATTTATGATTTAAATTCGATTGGGAACAACA
                                                                                                                                                                                                                                                                                                                             GAAGAAATTGATAATAGTCTAAATLAGGAAAGIGCICAACTATATGCCTTGAAAGAAGAT 360
                                  AAAGTTGATCAAGCTCACATTGATATGGGATTTGCTATTACGAAATTACTTATTCGCAIT 600
                                                                                                                                                                                                                      AAAACTTCACTTAGAGCIAATCCTGAAACAATTTATGATTTAAATTCGATCGGAACAAGA 480
                                                                                                                                                                                                                                                                                         GTTAAAGGAACTGAGAAAGAACAATCAGTTAATTCAGCAATTTCAGCTGTCGAAAATTTA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (16-AUG-1995) Min Jiang, Veterinary Infectious Disease Organization, 120 Veterinary Road, Saskatoon, Saskatchewan, Canada, S7N 5E3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449
CCATTIGCTICAAAIGAAICCATTAAAGGGCAAGTCGAAGCTGTTAAACAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism-"Streptococcus uberis"
/strain-"ATCC 9927"
/db_xref-"taxon:1349"
/cione-"pJLD21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /transl_table=11
/product="CAMP factor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1191:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0:
                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                 ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       먕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             γ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SACAMPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141 CAAAATTACTAGGGTAAAA STITTTTTTTTTTTTATAAATTTATSATS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081 CTTCTAAAACATAGCTAATTASTITAGTTTTCTGSCTAATASATTS
                                                         -35_signal
-10_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 CAAGCGACTGTGCTTACCTATCC CAACTTGCAGCCTACGGALA WASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601 GCAGACCCATTIGCTTCAAATGAATCCATTAAAGGGCAAGTCGAAGC
                                            RBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  941 GTACAATTANATCCAACTGTAACAGTTGCACAAGTTGACGAAJAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721 AAATCAAAATTAGACAAGCTTATTTSJCAAACAAGAATTACEASAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGCGACTGTGCTTACCIAICCCGAIIIGCAGCCTACGGATAGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAATTTATTAATTTCAGTECTTT AJAATTTTTATTTAGET "ATTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTACAATTAAATCCAACTGTAACAGTTGCACAAGTTGACCAAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAATCAAAATTAGACAAGCTTATI183CAAACAAGAATTATTAJAJA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITGGTGGAAAATCAA3TA10A2ACTTCATTTCTCTCCCALATACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAATTTATTAATTTCAUTCCTTTASAATTTTTATTTAGCISATTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CIICTAAAACATAGCIAATTASTTTASTTTTCTGGCTAATASAITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTGGTGGAAAATCAAGTACCATACTTCATTTGTCCCCCCAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SACAMPA 1467 EL
S.agalactiae CAMP Gene
X72754
                                                                                                                                                                                                                                                                      Podbietani
Direct Submission
Submitted (22 Mabrille) A. Podbielski
Submitted (22 Mabrille) A. Podbielski
Mikrobiologie an der Riein-Westf. Teo
Mikrobiologie Kilni<u>kke</u> (100 Aachen. F
                                                                                                                                                                                                         Molecular characterization of the cff agest streptococcal CAMP-factor
                                                                                                                                                                                                                                                                                                                                                                                                                         Streptococcus agalactiae
Streptococcus agalactiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g840865
x72754 1 GI-84 865
                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria: Firmicutes: Facillus/Clostridio
                                                                                                                                                                                                                                                                                                                                                        Podbielski,A
                                                                                                                                                                                                                                                                                                                                                                                         Streptococcus.
                                                                                                                                                                                                                                             Podbielski, A
                                                                                                                                                                                                                                                              Pauwelsstr. : 1
2 (bases 1 to
                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to :467
                                                                          /organism="Streptococcis augus".e.
/isolate="#268"
/db_xref="taxon:1311"
137. 142
                                          160.
297.
       /standard_pame="Shine Daiga::
311. .1078
                                                                                                                                                     ation/Qualifiers
                                                                                                                                                                                                                                                              to 24670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CZ
                                                                                                                                                                                                                                                                        Techn Ho
```

170 : •

5+ . . . :

. .

.

. .

Db. Ş

55

DЬ Š 9 Ý. S Ş ğ D_D 8 В Ş Вb Y 5 7.

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             yery Match
dest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
847 ITAAATCCAACTGTAACAGTT3CAGAAGTTGAUCAAGAAATCAAAGTGCT&CAAGAAGCA 906
                                                                                                                                                                    727 AAATTAGACAAGCTFATTTSSCAAACAAGAATTACCAGAGATCAAAAAGTTCTTAATGTA 786
                                                                                                                                                                                                           557
                                                                                                                                                                                                                                                                                              758 CCATTTGCTTCAGTTGATTCAATTAAAGCTCAAGTTAACGATGTAAAGGCATTAGGAACTAGAACA 817
                                                                                                                                                                                                                                                                                                                                        507 CCATTIGCTTCAAATGAATCCATTAAAGGGCCAAGTCGAAGCTGTTAAACAAGTGCAAGCG 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487 GCAAICICTGACGTGATTCAAGCAAIIGIIITTTCAACGCAACAGTTAACAAATAAAGTT 546
                                                                                                                                                                                                                                                                                                                                                                                                       547 SATCAAGCICACÁTTGATÁITÓGGATTTÞOTATTACGAAATTACTTATICGJATTGCAGAC 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 427 TCACITAGAGUIAATOCIGAAACAAITTATGATTTAAATTCGATTGGAACAAGAGTAGAA 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  518 GGAACAGATTÁTJAÁAAÁCCGGTTAÁTGAGGCTATTACTAGCGTGGAÁÁAAATTAAAGACT 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130 AATTATATITTTCAAAGAGGAATGOTTATGJAATTCAAAAAGTTACTTTATTTAACTGG- 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  siq_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344 ACTCTÁGTGGGTGGTGCATTGTTÁTTTTCACCAGCTGTÁTTAGAAGTÁCATGGTGÁTCAA 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189 --TICAATGG:AGSAATTAGTTTATTTTCCCCCAATTTTAACAAGTGTCCAAGCAAATCAA 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       284 ATTTTAGTTTAAAGGAGGAAATTTATTATGAAGGITACAGALATGATGTALCIAICIGGA 343
                                                                                   AAGAGTTTTGAAGTTTATCATCAATTAAATAAAGGTATGACACATGGAGTAGGTGGAGAA 845
                                             AAAGAATTTAAAGTTTACAATACTTTAAATAAAGCAATCACACATGCTGTTGGGGTTCÁG 997
                                                                                                                            AAACTTGĀTĀĀĠSAAATSTGGAĀTĀSĀGGSSTTTĀCTAGAGATAAAAAAGTĀGTTĀASGTS
                                                                                                                                                                                                                                                   ACTSTBCTTACCTATCCCGATTTGCAGCCTACCGATAGAGCAACTATTTACGTTAAATCA 726
                                                                                                                                                                                                                                                                                                                                                                               AGTCAAGCAAATATTGATATGGGATTTGGGATAACTAAGCTÄGTTATTCGCÄÄTTTTAGAT 757
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGACAACTCCACAAGTGGTAAATCATGTAAATAGTAATA-----ATGAAGGCCAGCAA 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAACIGAGAAAGAACAATCAGTTAATTCAGCAATTTCAGCTGTTGAAAATTTAAAAACT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGCTCAAAAGCTTGATCAAGATAGCATTCAGTTGAGAAATATCAAAGATAATGT10AG 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTSATAATAGTSTAAATGAGGAAAGTSSTSAASTATATGSSSTSAAAGAASATSTTANA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAAATGTTAGTCAACCATCTAATAATGAAAGTAATGTTATTTCACAGA£AAAAGAAGAA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  526:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /transl_table=11
/transl_table=11
/evidence-experimental
/product=-Camp factor*
/protein_id="CAA51283.1"
/db_xref="PID:g840866"
/db_xref="GI:840866"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref."Spfrembl.053651"
/translation="mnvthmmylsgtlvagallfspavlevhadqvttpqvvnhvhsn
nd@qmaukldqusiqlrnikdnvqgtdyekpvneaitsveklktsijanpegvypln
sigsrvealtdvieaitssightinksqqanicmgegiklvirildpeasvusikaq
vndvkaleqxvltypdlkptdratiyikskipveimn;
vndvkaleqxvltypdlkptdratiyikskipveimn;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NKAITHAVGVOLNPNVTVOQVEQEIVTLOAALGTALK"
311...397
398...1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /codon_start.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27.5%; Scure 331,4; DB 1: Length 1467; 54.5%; Pred. No. 3e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    210 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    272 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches 276: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·C
```

Į,

.7 Ś Ş Ş Вb C.Y Db. 5 8

DЬ

6

Ŷ þ ý D , ć 3 Ŷ 3

```
£3
                                                                       DЬ
                                                                                                 3
                                                                                                                               밁
                                                                                                                                                         S
                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                         BASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
AF079502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                     COUNT
837 TITATITICAACTATSADUDADIGAGTITTAGGIGATGATGTTTOA
                                                                                     147 AGGAATGCTTATGGAATT@AAAAASTTACTTTATTTAACTSJITCA
                                                                                                                                                                           557 TATTTICIGGAAATTAAANAAAATAITCNCCTTAGTAAAAAAJAAGIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                            Local Similarity 58.7% hes 555; Concern
                                                                                                                                              92 TAAGTACTTATTTTATATATAGATTGCAATT-----TATAAAJAA
                                                                                                                                                                                                         32 TATTTTTATGATAATSASAIAJAJITGAGTTAAAAAAATTITTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1058 CITCAAACAGCATTAAAATAATATTIJTATT 106e
                             TTTATTTTCCCCAATTTTAATAAGTGTCCAAGCAAATCAAATAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          998 TTGAATCCAAATGTTÄRGGTARARAAGTTGATCAARARRITI
                                                         GAGGAATAATATGAAACCLAAACACCTTCTCTGTCTTTCAACAGT
                                                                                                                  TAAGCGCTTATAAATTAATTTAACTTCACTTAACTATTTAAATAS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTAMAIACTGGTULACAGLAA GITAGAGATT 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gase K. Mostatin...

Direct Submission...

Primarited (2.500-1949 Microbiology and 1)

Primarited (2.500-1949 Center, 94 S.I. 1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oklahoma Health Sciences
City, OK 73147, TSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gase, K., Mostan W.M. Extinualx. ?
The CAMP factor sets (cfs) of grou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cloning, and expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Streptococcus pyodenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Streptococcus tyrum ra
AF079502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptococcis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Firmunites
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Streptococcis Filiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AF079502.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93406758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APO79402
                                                                                                                                                                                                                                                                                                                                     ر.
زين
زين
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases
                                                                                                                                                                                                                                                                                                                                     /proteir.id="AAC29481 ]"
/proteir.id="AAC29481 ]"
/db_xref="PID:22406759"
/db_xref="GI:3406759"
/trias:341.04-"MKFAHLICESTVAGLALFS
NEGROALVGKLDBANGQLEAIKHBAKGTDIETTV.
SSIGARVEALSDAIKAIVESTTOFTHKVFKAHTL)
GVJFI-AALEKVINYFDCOPTERATIVINARLNK:
LNKAITHAVGVQLNPTTVQQVDDEVIAVLIALE
LNKAITHAVGVQLNPTTVQQVDDEVIAVLIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           787. .156.
/gene="cta"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /transi_table=1;
/product="cAMP !actor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gete-1
787. .1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /code:_s:a:;-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="texon:1314"
787: .156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /Orianism="Stroptocook.
/strain="Spani"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Viditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.
                                                                                                                                                                                                                                     Score 309: LF L. Pred. No. 3e-34: Mismatches 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bu '11118/1165'11...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LNA Tartor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            group A stre
                                                                                                                                                                                                                                                                                                                                                                               SSIRFNIETTY
                                                                              # 11 m t
                                                                                                                                           *
                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.
```